This paper considers how identity, a person's sense of self, affects economic outcomes. We incorporate the psychology and sociology of identity into an economic model of behavior. In the utility function we propose, identity is associated with different social categories and how people in these categories should behave. We then construct a simple game-theoretic model showing how identity can affect individual interactions. The paper adapts these models to gender discrimination in the workplace, the economics of poverty and social exclusion, and the household division of labor. In each case, the inclusion of identity substantively changes conclusions of previous economic analysis.

I. INTRODUCTION

This paper introduces identity—a person’s sense of self—into economic analysis. Identity can account for many phenomena that current economics cannot well explain. It can comfortably resolve, for example, why some women oppose “women’s rights,” as seen in microcosm when Betty Friedan was ostracized by fellow suburban women.

* The authors especially wish to thank Abdeslam Maghraoui for his continued help and insights and Michael Ash, Jennifer Eichberger, and Cyd Fremmer for invaluable research assistance. Henry Aaron, William Dickens, Claudia Goldin, Edward Glaeser, Lawrence Katz, Robert Merton, Anand Swamy, and an anonymous referee made extensive comments on earlier drafts for which the authors are particularly grateful. They also thank Robert Akerlof, Abhijit Banerjee, Kaushik Basu, Paul Beaudry, Samuel Bowles, Robert Boyd, Gary Burtless, Alessandra Casella, Catherine Eckel, Stuart Elliott, Gary Fields, Pierre Fortin, James Foster, Richard Harris, Victoria Hattam, Peter Howett, Aurora Jackson, Kevin Lang, George Loewenstein, Glenn Loury, Michael Kremer, David Laibson, Janet Pack, Matthew Rabin, Francisco Rodriguez, Paul Romer, Eric Verhoogen, Eric Wanner, Kent Weaver, Robin Wells, Janet Yellen, and Peyton Young for help and comments. George Akerlof is grateful to the Canadian Institute for Advanced Research, the MacArthur Foundation, the Brookings Institution, and the National Science Foundation, under research grant number SBR 97-09250, for financial support. Rachel Kranton expresses her gratitude to the Russell Sage Foundation where she was a Visiting Scholar for 1997–1998.

© 2000 by the President and Fellows of Harvard College and the Massachusetts Institute of Technology.
The Quarterly Journal of Economics, August 2000
The Feminine Mystique. Other problems such as ethnic and racial conflict, discrimination, intractable labor disputes, and separatist politics all invite an identity-based analysis. Because of its explanatory power, numerous scholars in psychology, sociology, political science, anthropology, and history have adopted identity as a central concept. This paper shows how an identity-based economic analysis can be brought into economic analysis, allowing a new approach to economic problems. The conclusion indicates many other realms where identity almost surely matters.
gender identity, then, changes the "payoffs" from different actions. The model is informed by research on the salience of social categories for human behavior and interaction. We present in the next section a series of examples of identity-related behavior. These examples, and other evidence, indicate that (1) people have identity-based payoffs derived from their own actions; (2) people have identity-based payoffs derived from others' actions; (3) third parties can generate persistent changes in these payoffs; and (4) some people may choose their identity, but choice may be proscribed for others. The concept of identity expands economic analysis for at least four corresponding reasons.

First, identity can explain behavior that appears detrimental. People behave in ways that would be considered maladaptive or even self-destructive by those with other identities. The reason for this behavior may be to bolster a sense of self or to salve a diminished self-image.

Second, identity underlies a new type of externality. One person's actions can have meaning for and evoke responses in others. Gender again affords an example. A dress is a symbol of femininity. If a man wears a dress, this may threaten the identity of other men. There is an externality, and further externalities result if these men make some response.

Third, identity reveals a new way that preferences can be changed. Notions of identity evolve within a society and some in the society have incentives to manipulate them. Obvious examples occur in advertising (e.g., Marlboro ads). As we shall see, manipulating identity may affect economic outcomes. Notions of identity evolve within a society and some in the society have incentives to manipulate them.

Fourth, because identity is fundamental to behavior, choice of identity may be the most important "economic" decision people make. Individuals may—more or less consciously—choose who they want to be. Limits on this choice may be the most important economic decision people make. Identity may be the most important economic decision people make.

Our analysis proceeds as follows. In the next section we propose a general utility function that incorporates identity as a motivation for behavior. It introduces the vocabulary and theoretical framework used throughout the paper. This section also presents an analysis of how identity affects economic outcomes.

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This model of identity is informed by a vast body of research on the salience of social categories for human behavior and interaction. Other conclusions then, changes the "payoffs" from different actions.
Section II proposes a utility function that incorporates identity as a motivation for behavior. This function is designed to capture the role of identity in social interactions and economic decisions. By integrating identity into the utility function, we can better understand how individuals make choices and how their actions are influenced by their social categories.

To formally define this utility function, let $U(x, d)$ represent the utility of an individual's decision $x$ given a set of descriptive characteristics $d$. The function $U$ includes a term that captures the identity effect, which is modeled as a function of the individual's social categories $G$ and a parameter $y$ that represents the importance of identity.

$$U(x, G, y) = U(x) + y \sum_{g \in G} I(g)$$

where $I(g)$ is an indicator function that equals 1 if the individual is in category $g$ and 0 otherwise. The term $y$ adjusts the weight of the identity effect.

This section also considers applications of the utility function in various economic settings, such as labor market discrimination, social exclusion, and the division of labor. By using the identity function, we can analyze how differences in social categories impact economic outcomes and policy decisions.

In conclusion, the utility function with identity provides a framework for understanding how social categories influence economic behavior. It allows us to explore the implications of identity in economic theory and offers insights into the design of policies that account for the role of identity in social interactions.
the ideal man is male, muscular, and should never wear a dress, except perhaps on Halloween.

We propose the following utility function:

\[ U_j(a_j, a_{\overline{j}}, I_j) \]

Utility depends on \( j \)'s identity or self-image \( I_j \), as well as the usual vectors of \( j \)'s actions, \( a_j \), and others' actions, \( a_{\overline{j}} \). Since \( a_j \) and \( a_{\overline{j}} \) determine \( j \)'s consumption of goods and services, these arguments and \( U_j(\cdot) \) are sufficient to capture the standard economics of own actions and externalities.

Following our discussion above, we propose the following representation of \( I_j \):

\[ I_j(a_j, a_{\overline{j}}; c_j, \overline{c}_j, P) \]

A person \( j \)'s identity \( I_j \) depends, first of all, on \( j \)'s assigned social category \( c_j \). The social status of a category is given by the function \( I_j(\cdot) \), and a person assigned a category with higher social status may enjoy an enhanced self-image. Identity further depends on the extent to which \( j \)'s own given characteristics \( \overline{c}_j \) match the ideal of \( j \)'s assigned category, indicated by the prescriptions \( P \). Finally, identity depends on the extent to which \( j \)'s own and others' actions correspond to prescribed behavior indicated by \( P \). We call increases or decreases in utility that derive from \( I_j \), gains or losses in identity.

In the simplest case, an individual \( j \) chooses actions to maximize utility (1), taking as given \( c_j, \overline{c}_j, P \) and the actions of others.

Beyond actions, to some extent an individual may also choose the category assignment \( c_j \). Social categories may be more or less ascriptive, and in general, the individual is likely to have some

4. In the case of a category with high (low) social status, a person will

5. Since an individual's self-concept may be formed by seeing oneself through the eyes of others [Gleitman 1996, p. 343], these gains or losses may also depend on how others interpret \( i \)'s actions. The opinions of others may be revealed through actions \( a_{\overline{j}} \); the individual may also care about others' categorizations \( c_{\overline{j}} \).

6. Sen [1997] makes the analogy that light does not know that it is minimizing distance, but behaves as if it does. This notion follows Friedman's [1953] dicta for the methodology of positive economics. Whether or not \( j \), consciously realizes she is maximizing a utility function such as (1), she does so nevertheless. In our setting, in particular, the motivations for behavior may be unconscious. Whether an individual is fully aware of her own motivations, as in standard utility theory which is agnostic as to whether an individual shopper is aware or not of the reasons for her choices, or aware of the extent to which \( j \) depends on the external to which \( j \) owns ascriptive characteristics \( \overline{c}_j \) and a person assigned a category with higher social status of a category is given by the function \( I_j(\cdot) \), and a person's assigned social identity \( I_j \) depends, first of all, on \( j \)'s assigned social category

\[ (d_j, e_j, f_j, g_j, h_j) = 1 \]

\[ \{d_j, e_j, f_j, g_j, h_j\} = \{1\} \]

We propose the following utility function:

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choice over identity, as indeed people may even have some choice over their gender. Again, this "choice" may be more or less conscious.

Individual actions may also affect the prescriptions $P$, the set of social categories $C$, as well as the status of different categories reflected in $Ij(·)$. The prominence of identity in psychology suggests that economists should consider identity as an argument in utility functions. Psychologists have long posited a self or "ego" as a primary force of individual behavior. They have further associated an individual's sense of self to the social setting; identity is bound to social categories; and individuals identify with people in some categories and differentiate themselves from those in others.7

Later experiments show that competition is not necessary for group identification and even the most minimal group assignment can affect behavior. "Groups" form by nothing more than random labels. Consider the Robbers Cave experiment. In its initial week, two groups of boys at a summer camp in Oklahoma were kept apart. During this period, the boys developed norms of behavior and groups of boys at a summer camp in Oklahoma were kept apart.

While experiments in social psychology do not show the existence of a "self" or this identification per se, they do show the psychological and differental differences from those in other cultures. The prominence of identity in psychology suggests that economists should consider identity as an argument in utility functions.
Our modeling of identity exactly parallels these experiments. In the experiments, as in our utility function (1), there are social categories; there is an assignment of subjects to those social categories; finally, subjects have in mind some form of assignment-related prescriptions, else rewards would not depend on group assignment.

C. Examples of Identity-Related Behavior

We next present a set of "real-world" examples of four different ways, outlined in the introduction and formalized in our utility function, that identity may influence behavior. Our first set demonstrates that people have identity-related payoffs from their own actions. The impact of an action $a_j$ on utility $U_j$ depends in part on its effect on identity $I_j$. 

Self-Mutilation.

The first of these examples is perhaps the most dramatic: people mutilate their own or their children's bodies as an expression of identity. Tattooing, body-piercing (ear, nose, navel, etc.), hair conking, self-starvation, steroid abuse, plastic surgery, and male and female circumcision all yield physical markers of belonging to more or less explicit social categories and groups. In terms of our utility function, these practices transform an individual's physical characteristics to match an ideal. The mutilation may occur because people believe it leads to pecuniary rewards and interactions such as marriage. But the tenacity and defense of these practices indicate the extent to which belonging relies on ritual, and people have internalized measures of beauty and virtue. In a study of sexuality in rural Egypt, Khattab [1996] reports that women consider female circumcision a beautifying practice. It accentuates the difference between the sexes: "We don't want to look like a man with a protruding organ" [p. 20]. Bumiller [1990] reports an example of female self-sacrifice. He tells of how admirers of a woman who committed sati in a Rajasthani village in 1987 paid their respects. One devotee expressed her admiration: "If I had known she was going to do this I would have touched her feet. Now I will give her a place in my house and worship her every day." This respect is no less diminished by admirers' doubts that they would have had the same courage or by their ignorance of the pressure on the widow from her in-laws.

9. See Khatibi [1986] for analysis of how marking the body by circumcision and tribal tattoos marks the self.

10. An alternative explanation is that these practices are signals of some mechanism that is correlated with the ideal attributes. However, it is hard to imagine why people would engage in self-sacrifice if unobserved economic attributes were relevant. Moreover, it is hard to imagine why people would engage in self-sacrifice if unobserved economic attributes were at stake. 

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for a study of nurses and Marines, see Williams (1989).

Our second set of examples demonstrates that people have identity-related payoffs from others’ actions. The effect of an action $a_j$ on utility of $I_j$ includes an impact on $I_j$ which may be an insult which its felt to undermine, impairs the masculine self-concept. For a man, an action may be viewed as a threat to his identity. For a woman, an action may be viewed as an insult or an insult to a woman working in a “man’s” job.

Gender and Occupations. A woman working in a “man’s” job may be particularly vulnerable to the threat of threat. Her gender conflicts with the stereotype of a “man’s” job, and she may feel that her identity is being challenged. This is particularly true for women in traditionally male-dominated fields such as engineering and medicine. The experience of gender discrimination and the pressure to conform to traditional gender roles can be significant sources of stress and anxiety for women in these fields.

Our second set of examples demonstrates that people have identity-related payoffs from others’ actions. The effect of an action $a_j$ on utility of $I_j$ includes an impact on $I_j$ which may be an insult which its felt to undermine, impairs the masculine self-concept. For a man, an action may be viewed as a threat to his identity. For a woman, an action may be viewed as an insult or an insult to a woman working in a “man’s” job.

To further assess the reasons for such behavior, we took a random-sample telephone survey relating a vignette about a female carpenter at a construction company who was “baited and teased” by a male coworker. We see in Table I that among the six possible explanations, 84 percent of the respondents said it was “somewhat likely,” “likely,” or “very likely” that the male worker behaved in this way because he felt less masculine. This explanation was one of the most popular, and more than three-quarters of the respondents thought that a woman in a man’s job “frequently” or “almost always” faces such treatment.

Manhood and Insult. For a man, an action may be viewed as an insult which, if left unanswered, impugns his masculinity. As in the example above, an action $a_j$ impacts $I_j$ which may be an insult which its felt to undermine, impairs the masculine self-concept. Psychologists Nisbett and Cohn [1996] have detected such identity concerns in experiments at the University of Michigan. In one experiment, participants were given a task that involved manipulating a machine. The participants were then asked to either cooperate or compete with each other. Those who were assigned to compete felt less masculine and were more likely to engage in aggressive behavior than those who were assigned to cooperate. This suggests that identity concerns can influence behavior in a variety of contexts.

13. Levine [1997] also found that men often refused to train women and sabotaged their work. In addition, women in men’s jobs were subject to sexual harassment. These findings are consistent with the idea that gender conflicts can lead to negative outcomes for women in male-dominated fields.

14. Differences in response by gender were negligible. The survey included three other vignettes, two of which described a man (woman) contemplating a switch to a predominantly female (male) occupation. Responses indicate that gender could be of concern in such a decision. The responses were multidimensional, involving a range of factors such as salary, work-life balance, and personal identity.

Gender and Identity. Why do gender differences in mountaineering performance and endurance arise? Recent studies have suggested that gender may play a significant role in these differences. For example, some researchers have found that women may be more likely to experience “cognitive dissonance” when faced with a challenge that is inconsistent with their gender role expectations. This can lead to heightened motivation and performance, which may be particularly evident in competitive settings.

15. Differences in response by gender were negligible. The survey included three other vignettes, two of which described a man (woman) contemplating a switch to a predominantly female (male) occupation. Responses indicate that gender could be of concern in such a decision. The responses were multidimensional, involving a range of factors such as salary, work-life balance, and personal identity.

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These experiments, they argue, reveal remnants of the white antebellum Southern "culture of honor" in disparate reactions to insult of males from the U.S. South and North.15 Their experiments involved variations of the following:

15. For a description of this "culture of honor," see also Butterfield [1995].

"Gentlemen" reacted to insult by engaging in duels. Those of lower class fought with hands and fists with no holds barred, so that fights extended to such extremities as eyes, ears, and nose.

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**TABLE I**

<table>
<thead>
<tr>
<th>VIGNETTE CONCERNING HARASSMENT AND EVALUATION OF POSSIBLE EXPLANATIONS</th>
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<tbody>
<tr>
<td><strong>Explanation</strong></td>
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*a. Sample size is 70 households. Households were selected randomly from the Fremont, CA phonebook.
*b. Standard errors are in parentheses.
*c. Average with not-at-all likely = 1, not likely = 2, somewhat likely = 3, likely = 4, very likely = 5.*
scenario: an associate of the experimenters bumped subjects in the hallway as they made their way to the experiment. Rather than apologizing, the associate called the subject "asshole." Insulted Southerners were more likely than insulted Northerners and control Southerners to fill in subsequent word-completion tests with aggressive words (for example, g-un rather than f-un) and had raised cortisol levels.

Most revealing that the insult affected identity, insulted Southerners were also more likely to fear that the experimenter had a low opinion of their masculinity. They will probably never meet the experimenter or the hallway accomplice again; their encounter in the experiment is otherwise anonymous. Their concern about the experimenter then can only be a concern about how they feel about themselves, about their own sense of identity, as perceived through the "mirror of the opinions and expectations of others" [Gleitman 1996, p. 343]. We see the same psychology in other examples.

Changing Groups or Violating Prescriptions. Because of j's identification with others, it may affect j's identity when another person in j's social category violates prescriptions or becomes a different person. A common response is scorn and ostracism, which distances oneself from the maverick and affirms one's own self-image. Such behavior occurs daily in school playgrounds, where children who behave differently are mocked and taunted. Those who seek upward mobility are often resented by their peers, whose success appears to them to threaten their own social standing. Such behavior is common in schools that are predominantly made up of students who conform to the majority. A different person in j's social category violates prescriptions of becoming a person in j's social category. A common response is scorn and ostracism, which affects j's identity in a different way. The experiment further supports this view, as j's performance on the aggressive words test is significantly higher than that of the control group.

Our third set of examples demonstrates that to some extent people choose their identity; that is, j may be partially a choice. Many women in the United States can choose either a career or a family. Parents often choose a school—public versus private, secular versus parochial—to inculcate a sense of identity that they believe will prepare their children for success in later life. The experiment further supports this view, as j's performance on the aggressive words test is significantly higher than that of the control group.

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The choice of where to live at college can both reflect and change how students think of themselves. Fraternities, sororities, African-American, or other "theme"-oriented dorms are all associated with social groups, self-images, and prescribed behavior. The list can continue. The choice for an immigrant to become a citizen is not only a change in legal status but a change in identity. The decision is thus often fraught with ambivalence, anxiety, and even guilt. Identity "choice," however, is very often limited. In a society with racial and ethnic categories, for example, those with nondistinctive physical features may be able to "pass" as a member of another group. But others will be constrained by their appearance, voice, or accent.

Advertising. Advertising is an obvious attempt to manipulate prescriptions. Marlboro and Virginia Slims advertisements, for example, promote an image of the ideal man or woman complete with the right cigarette.

Professional and Graduate Schools. Graduate and professional programs try to mold students' behavior through a change in identity. As a "one-L" Harvard Law School student said: "They are turning me into someone else. They're making me different." [Turow 1977, p. 73]. In medicine, law schools, and the military, a title is added to a graduate's name, suggesting the change in person.
activists often strive to change a population's preferences through a change in identity or prescriptions. Again, examples abound. Fascist and populist leaders are infamous for their rhetoric fostering racial and ethnic divisions, with tragic consequences. Symbolic acts and transformed identities spur revolutions. The ringing of the Liberty Bell called on the colonists' identities as Americans. Gandhi's Salt March sparked an Indian national identity. The French Revolution changed subjects into citizens, and the Russian Revolution turned them into comrades.

III. ECONOMICS AND IDENTITY: A PROTOTYPE MODEL

In this section we construct a prototype model of economic interaction in a world where identity is based on social difference. In addition to the usual tastes, utility from actions will also depend on identity. Identity will depend on two social categories—Green and Red—and the correspondence of one's actions to behavioral prescriptions for these categories.

A. A Prototype Model

We begin with standard economic motivations for behavior. There are two possible activities, Activity One and Activity Two. There is a population of individuals, each of whom has a taste for either Activity One or Activity Two. Each person would engage in the activity corresponding to her taste. An individual who chooses the activity that does not match her taste earns zero utility. In a standard model of utility maximization, everyone earns utility.

We next construct identity-based preferences. We suppose that there are two social categories, Green and Red. We assume that there are two social categories, Green and Red. We assume that there are two social categories, Green and Red. We assume that there are two social categories, Green and Red. We assume that there are two social categories, Green and Red. We assume that there are two social categories, Green and Red. We assume that there are two social categories, Green and Red.

In this section we construct a prototype model of economic interaction in a world where identity is based on social difference.
Green identity. This loss in identity entails a reduction in utility of 
Is, where the subscript s stands for "self." In addition, there are 
identity externalities. If an i and j are paired, Activity Two on the 
part of i diminishes j's Green identity. j has a loss in utility 
Io, where the subscript o denotes "other." After i has committed 
Activity Two, j may "respond." The response restores 
j's identity a tac o s t c, while entailing a loss to 
i in amount L.24

Figure I represents an interaction between an individual 
with a taste for Activity One ("Person One") and an individual 
with a taste for Activity Two ("Person Two"). Person One chooses 
an activity first.25 This model can be expressed by ideas central to the psycho- 
dynamic theory of personality, found in almost any psychology 
textbook.26 In personality development, psychologists agree on the 
importance of internalization of rules for behavior. Freud called 
this process the development of the superego. Modern scholars 
agree on the importance of anxiety that a person experiences when she violates her internal-
ized rules. One's identity, or ego, or self, must be constantly 
defended against anxiety in order to limit disruption and main- 
tain a sense of unity.27 In terms of our model, Person Two's internalization of prescriptions 
causes her to suffer a loss in utility of Io if she chooses Activity Two. To avoid this 
anxiety, she may refrain from that activity. Identification is a critical part of this internalization process.

24. In Rabin's [1993] theory of fairness, agents are willing to pay to be "mean" 
to those who are "mean" to them. The similarity is probably no coincidence. A likely 
reason for such a response is preservation of self-image.

25. Since Person One never chooses Activity Two in a subgame perfect 
equilibrium, we suppress this branch of the tree.

26. See, for example, Gleitman [1996, Chapter 17], Thomas [1996], and 
Breger [1974].

27. The violation arouses emotions that Person One has repressed in the 
process of internalizing the behavioral rules. The psychoanalytic theory, then, 
suggests unconscious motivations for behavior.
FIGURE I

Game Tree of Interaction between Person One and Person Two

<table>
<thead>
<tr>
<th></th>
<th>7 - c</th>
<th>I - A</th>
<th>I - A</th>
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<tbody>
<tr>
<td>Not Respond</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respond</td>
<td></td>
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<td></td>
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</table>

Person One

<table>
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<tr>
<th></th>
<th>A</th>
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<tbody>
<tr>
<td>Activity Two</td>
<td>0</td>
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</table>

Person Two

<table>
<thead>
<tr>
<th></th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity One</td>
<td></td>
</tr>
</tbody>
</table>

Person One

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Person Two engages in Activity Two, the equilibrium outcome of the game.

C. Equilibrium Outcomes

There are four possible subgame perfect outcomes of the game in Figure I.

(i) Person One deter Person Two from engaging in Activity Two, when $c/H_1 > Io$ and $Is/H_1 < V/L$.

(ii) Person One responds but does not deter Person Two from engaging in Activity Two, when $c/H_1 > Io$ and $Is/H_1 < V/L$.

(iii) Person One does not respond, and Person Two engages in Activity Two, when $c/H_1 > Io$ and $Is/H_1 < V/L$.

(iv) Person Two does not engage in Activity Two regardless of Person One's response, when $Is/H_1 < V$.

This simple model affords three lessons. First, as discussed earlier, the model establishes the connection between economic interactions and the psychology of identity, especially the implications of identification. Second, the model allows a comparative static analysis on identity-related parameters. Finally, the elementary assumptions of the model suggest extensions that entail greater realism and further implications of identity for economic interactions.

C. Comparative Statics

Comparative statics show how traditional economic policies can affect behavior in this setting. For example, a ''tax'' $T$ on the response to Activity Two will affect the equilibrium outcome in case (i). For a sufficiently high tax ($T > 1$), Person One's response to Activity Two is no longer credible, and Person Two will switch from Activity One to Activity Two. This policy benefits Person Two at the expense of Person One. Total utility changes from $V$ to $2V - T$, a positive change if $V > Is/H_1 < Io$. A policy with the opposite effect is a tax on Activity Two itself. This policy would benefit Person One at the expense of Person Two in cases (ii) and (iii). In the first (second) case, a tax in excess of $V/H_1 > Io$ on Activity Two will render Activity Two unprofitable for Person One, and Person Two will respond to Activity One in Activity Two, where the equilibrium outcome in response to Activity Two will affect the equilibrium outcome in Activity Two.

Another basis for the model is the psychology of cognitive dissonance. When Person Two engages in Activity Two, she challenges the validity of Person One's beliefs, and Person One suffers from cognitive dissonance. To remove this dissonance, Person One may act against Person Two. Person Two, on the other hand, may act against Person One to maintain her sense of unity. Person One no longer loses $O$, although she does incur $c$.28 Another basis for the model is the psychology of cognitive dissonance.

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29. Of course, such a ''welfare analysis'' is subject to the usual caveats concerning interpersonal comparisons and the measurability of utility.
Is, and, in the second case, if \( \frac{V}{I_0} \) \( \frac{I_s}{I_0} \). Finally, policies may change the prescriptions themselves. A rhetorical campaign, for example, may make Activity Two more loathsome to Greens, leading to higher values of \( I_s \) and \( I_0 \) and greater conformity to the prescriptions. Of course, a different campaign could have the opposite effect. Policies are identity examples of the conflict of the Paretian Liberal [Sen 1970].

Different assumptions about identity and social exclusion could depend on the probability of different matchings or situations. These choices—people's identities as well as their activities—could depend on the situation. For example, by choosing Activity Two, a person could affirm her identity as a Red. People could also choose to change their identities in certain situations. Activities One and Two could have different meanings for different people. These choices could depend on the probability of different matchings or situations. Kuran [1998] considers ethnically symbolic activities in a model where people care about belonging to an ethnic group. When greater overall resources are devoted to an ethnic activity, an individual's marginal utility from this activity can increase, leading to an "ethnification" cascade.
tions'' in which agents find themselves—can be endogenous, driven by prescriptions and identities. We will see this outcome below in our first, and perhaps most obvious application.

IV. IDENTITY, GENDER, AND ECONOMICS IN THE WORKPLACE

An identity theory of gender in the workplace expands the economic analysis of occupational segregation. As recently as 1970, two-thirds of the United States’ female or male labor force would have had to switch jobs to achieve occupational parity. This measure of occupational segregation remained virtually unchanged from 1970 to 1990, when employed women were more likely to select men’s jobs for their earning power for their earning power, a finding that does not bode well for equality in the workplace.

The model we propose captures the “auras of gender” [Goldin 1990a] that have pervaded the labor market. Occupations are associated with the social categories “man” and “woman,” and individual payoffs from different types of work reflect these gender associations. This model can explain patterns of occupational segregation that have eluded previous models. It also directly captures the consequences of the women’s movement and affords a new economic interpretation of sex discrimination.

Identity also provides a microfoundation for earlier models. The “distaste” of men for working with women, as in the crudest adaptations of racial discrimination models [Becker 1971; Arrow 1972], can be understood as due to loss in male identity when women work in a man’s job. Similarly, women’s assumed lower desire for labor force participation (as in Mincer and Polachek [1974], Bulow and Summers [1987], and, more recently, Lazear and Rosen [1990]) can be understood as the result of their identity as homemakers.

The model we propose captures the “auras of gender” [Goldin 1990a, Chapter 3] for each of the two categories, “men” and “women,” with pretensions of appropriate activities for each. A firm, wishing to

A. The Model

There are two social categories, “men” and “women,” with


33. In Bergmann [1974], male employers are averse to hiring women for particular jobs and may collude to keep women out of high-paying occupations, reserving the gains for other males. In our theory, the source of occupational segregation is empirically motivated—the maintenance of gender identity on the part of employees.

34. An appendix with complete specification of the model is available from the authors upon request.
...
terns go beyond what can be explained by women's assumed lower labor force attachment as in Mincer and Polachek [1974], where women work in occupations that require little investment in firm-specific human capital. 40

In our model, women will dominate jobs whose requirements match construed female attributes and inferior social status; men eschew them. Historically, three occupations illustrate: secretaries (97.8 percent female in 197041) have often been called "office wives," and elements of sexuality are inscribed in the working relationship (boss/male, secretary/female) [MacKinnon 1979; Pringle 1988]. Secretaries are expected to serve their bosses, with deference, and to be attentive to their personal needs [Davies 1982; Kanter 1977; Pierce 1996]. Elementary school teachers (83.9 percent female), in contrast to secondary school teachers (49.6 percent female), are supposed to care for young children. Nurses (97.3 percent female) are supposed to be tender and care for patients, as well as be deferential to doctors [Fisher 1995; Williams 1989].

In our model, women do not enter male professions because of gender associations. Historically, many male professions have required similar levels of education and training to female professions and could have been amenable to part-time and intermittent work. Contrast nursing and teaching with accounting and law. All require college degrees and certification, and sometimes have tenure and experiences-based pay. Only the very top of these professions have required continuity in employment and full-time work.

In our model, women do not enter male professions because of gender associations. Historically, many male professions have required continuity in employment and full-time work.
were portrayed as temporary; only the wartime emergency excused the violation of the usual gender prescriptions.

C. Effects of the Women's Movement

The model gives a theoretical structure for how the women's movement may have impacted the labor market. The movement's goals included reshaping societal notions of femininity (and masculinity) and removing gender associations from tasks, both in the home and in the workplace. In the model, such changes would decrease women's gains (men's losses) in identity from homemaking, and decrease the identity loss of women (men) working in traditionally men's (women's) jobs. In 1998 the median job tenure of employed women over 25 was 0.4 years lower than that of men; in 1968 that gap had been 3.3 years.43 Changes in sex composition within occupations accounted for the major share of decline in occupational segregation from 1970–1990 [Blau, Simpson, and Anderson, 1998]. Of the 45 three-digit Census occupations that were 0.0 percent female in 1970, only one (supervisors: brickmasons, stonemasons, and tile setters) was less than 1 percent female twenty years later. Many sectors were less than 1 percent female twenty years later. Men's job tenure has also been considerably affected by shifts in the age distribution of the workforce, both because of demographic shifts and also early retirement.44

42. The Feminine Mystique was published in 1963, and the National Organization for Women was founded in 1966.42

43. 3.8 years for men versus 3.4 for women in 1998 [United States Department of Labor, 1998]; 7.1 years for men versus 3.8 for women in 1968. Sources: The figures for the two years are not strictly comparable; in 1968 the question asked for the time elapsed since the beginning of the current job, in 1998 since the current employer. Median male job tenure has also been considerably affected by shifts in the age distribution of the workforce, both because of demographic shifts and also early retirement.

explanations for such increases—technology, endowments, and tastes—elimination makes tastes the leading suspect, since there was no dramatic change in technology or endowments that would explain such increases. Legal initiatives discussed next reflect such changes in tastes.

D. Gender-Job Associations and Sex Discrimination Law

Legal interpretations of sex discrimination correspond to earlier economic models as well as our own. Title VII of the Civil Rights Act of 1964 makes it unlawful for an employer to discriminate against any individual with respect to compensation, terms, conditions, or other terms of employment or to adversely limit, segregate, or classify employees because of sex. Courts also interpret Title VII as outlawing statistical discrimination by sex or criteria correlated with sex, even when women on average lack a desirable job qualification. Discriminatory hiring because of presumed lower workplace attachment, as in Lazear and Rosen (1990), was precend in Diaz v. Pan American World Airways. The plaintiff had been denied a partner position because the airline originally pleaded for male flight attendants because women were better at "the nonmechanical aspects of the job." The association of gender with the job was raised in Phillips v. Martin-Marietta (1971), a race discrimination case, is an important precedent outlawing test results and other criteria correlated with race or gender as employment screens. Price Waterhouse v. Hopkins (1989) set a precedent for workers already hired. The plaintiff had been denied a partner role because of feminine traits deemed irrelevant to the "primary function or services offered" (cited in MacKinnon [1979, p. 180]).

Our model, where sex discrimination occurs because jobs have gender associations, corresponds to a wider interpretation of Title VII. This interpretation is at the forefront of current legal debate and is supported by a number of precedents. In Diaz v. Pan American World Airways, the Court outlawed sex bans in hiring. The airline originally pleaded for their prohibition of male flight attendants because women are better at "the nonmechanical aspects of the job." But this association of gender with the job was disallowed on appeal since feminine traits were deemed irrelevant to the "primary function or services offered" (cited in MacKinnon [1979, p. 180]). Price Waterhouse v. Hopkins (1989) set a precedent for workers already hired. The plaintiff had been denied a partner position after negative evaluations for her masculine deportment. The Supreme Court ruled that "an employer who objects to...

46. Computers are used intensively in few of the occupations with major changes in mix.
47. 42 U.S.C. §§ 2000e–2000e17 [1982], Sections 703(a)(1) and 703(a)(2).
49. 442 F.2d 385 (5th Cir.) cert. denied, 404 U. S. 950 (1971).
50. 490 U. S. 228 (1989).
aggressiveness in women but whose positions require this trait places women in an intolerable and impermissible Catch 22'' (cited in Wurzburg and Klonoff [1997, p. 182]). Cases have also involved harassment of women working in men's jobs as, in the terminology of our model, male coworkers protect themselves from loss of identity. Berkman v. City of New York reinstated a firefighter who had been dismissed because of substandard work performance. The Court ruled that the interference and harassment by her male coworkers made it impossible for her to perform her job adequately [Schultz 1998, p. 1770]. This expansive interpretation of a "hostile work environment," a category of sexual harassment which is in turn a category of sex discrimination, has been exceptional. Judges have viewed sexual desire as an essential element of sexual harassment. However, Schultz [1998] and Franke [1995] argue that any harassment derived from gender prescriptions has discriminatory implications (as depicted in our model) and are thus violations of Title VII.

V. IDENTITY AND THE ECONOMICS OF EXCLUSION AND POVERTY

This section will consider identity and behavior in poor and socially excluded communities. In an adaptation of the previous model of Greens and Reds, people belonging to poor, socially excluded groups will choose their identity. Greens identify with the dominant culture, while those with Red identity reject it and the subordinate position assigned to those of their "race," class, or ethnicity. From the point of view of those with Green identities, Reds are often making bad economic decisions; they might even be described as engaging in self-destructive behavior. Taking drugs, joining a gang, and becoming pregnant are possible from the standpoint of a Green, while those with Red identity are better equipped to face these threats. They might mean economic decisions that will benefit themselves. From the perspective of the excluded, those with Red identity face a difficult choice. To become a Green, they will lose their own identity, which is so essential to their self-esteem. The conflict between the two identities is implicit in Wilson's account of black ghetto poverty [1998, 1996].

'This section will consider identity and behavior in poor and socially excluded groups. The model of Greens and Reds, people belonging to poor, socially excluded communities, is an adaptation of the previous model of Greens and Reds, people belonging to poor, socially excluded communities, but it is also implicit in previous models of behavior and identity. The aspect of behavior and identity that is most obvious in the previous model is the conflict between the two identities. From the standpoint of a Green, those with Red identity are better equipped to face these threats. They might mean economic decisions that will benefit themselves. From the perspective of the excluded, those with Red identity face a difficult choice. To become a Green, they will lose their own identity, which is so essential to their self-esteem. The conflict between the two identities is implicit in Wilson's account of black ghetto poverty [1998, 1996].

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study that finds significant dummy variables for "race," after adjustment for other measures of socioeconomic status. The Green/Red model of this section offers an explanation for the significance of such dummy variables. Furthermore, it yields a less monolithic view of poverty than current economic theories that emphasize conformity (e.g., Akerlof [1997] and Brock and Durlauf [1995]).

A. Motivation for Model

Our model reflects the many ethnographic accounts of poor white youths in poor neighborhoods and the psychological effects of social exclusion in the colonial experience analyzed by Bhabha [1983] and Fanon [1967], and in the context of African-Americans in the United States by Anderson [1990], Baldwin [1962], Clark [1965], DuBois [1965], Frazier [1957], Hannerz [1969], Rainwater [1970], Wilson [1987, 1996], and others. In these settings, individuals from particular groups can never fully fit the ideal type, the ideal "Green," of the dominant culture. Some in excluded groups, due to their limited opportunities and limited success in "passing" or integrating with the dominant culture, but the idea to "pass" is not unique to those of the dominant culture; some in excluded groups can never truly be the ideal type. From particular groups can never truly be the ideal type. In the colonial experience, analyzed by Bhabha [1983] and Fanon [1967], and in the context of African-Americans in the United States by Anderson [1990], Baldwin [1962], Clark [1965], DuBois [1965], Frazier [1957], Hannerz [1969], Rainwater [1970], Wilson [1987, 1996], and others. In these settings, individuals from particular groups can never fully fit the ideal type, the ideal "Green," of the dominant culture. Some in excluded groups, due to their limited opportunities and limited success in "passing" or integrating with the dominant culture, but the idea to "pass" is not unique to those of the dominant culture; some in excluded groups can never truly be the ideal type.

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I've also been doing the standard Negro balancing act when it comes to dealing with white folks, which involves sufficiently blurring the edges of my being so that they don't feel intimidated, while simultaneously holding on to my integrity. There is a thin line between Uncle-Tomming and Mau-Mauing. To fall off that line can mean disaster. On one side lies employment and self-hatred; on the other, the equally dubious honor of unemployment with integrity.

These reactions, it must be emphasized, reflect how dominant groups define themselves by the exclusion of others. The creation and evolution of such social differences are the subject of much historical research. Said [1978] documents the emergence of the Western idea of the ''Oriental,'' a concept that had significant implications for colonialism. In the United States Roediger [1991] and other historians show how workers of European descent in the nineteenth century increasingly were defined as ''white.'' Prior to Emancipation, this identity evoked the contrast between white freedom and African-American enslavement. In the model we construct, the key interaction is between such social differences and the adoption of oppositional identities by those in excluded groups.

Further externalities accrue from drug dealing, crime, and other "pathological" behavior. Our model also includes identity-based externalities. A Red is angered by a Green's complicity with the dominant culture, while a Green is angered by a Red's "breaking the rules." Again, consider Willis' lads and earholes. As the lads define themselves in contrast to the earholes, the earholes define themselves in contrast to the lads. The lads are even more prejudiced against those from the lads' own group than the earholes are for the lads. This situation is just one (relatively tame) example of how interaction between the two groups generates antagonism on both sides.

B. Identity Model of Poverty and Social Exclusion

As in the prototype model, there are two activities, One and Two. Activity One can be thought of as "working" and Activity Two as "not working." There is a large community, normalized to size one, of individuals. The economic return to Activity One for individual $i$ is $v_i$, which we assume is uniformly distributed between zero and one, to reflect heterogeneity in the population and to ensure interior solutions. The economic return to Activity Two is normalized to zero. As for identity, there are two social categories, Green and Red. A Green suffers a loss in identity, $r$, representing the extent to which someone from this community is not accepted by the dominant group in society. Those with the less adaptive Red identity do not suffer this loss. Behaviors prescribed by the dominant group in society, those with the less adaptive Red identity, do not reflect this loss. Thus, a Green (Red) should engage in Activity One (Two), $T_1$. This gives Greens (Reds) a large community of individuals who are similar to themselves, which in turn, has a large economic return to Activity One. Because Reds reject the dominant Green culture, they are also likely to have lower economic returns to Activity One than Greens do. Thus, a Green in Activity One will have an economic return of $v_i$, while a Red will only earn $v_i - r$ from Activity One. Greens (Reds) suffer a loss in identity, $r$, representing the extent to which someone from this community is not accepted by the dominant group in society.

In the prototype model, there are also identity-based externalities. A Red experiences a loss in identity from meeting and interacting with a Green, $r$. Similarly, a Green suffers a loss in identity from meeting and interacting with a Red, $r$. These externalities reflect the fact that both groups are affected by the other, even when they are not directly interacting. For example, the presence of one group may influence the behavior of the other, leading to a change in the other group's identity and thus their economic returns. This interdependence is captured in our identity model through the identity externalities term.
impose a pecuniary externality on those who have chosen Activity One.

Each person chooses an identity and activity, given the choices of everyone else in the community. We assume that people cannot modify their identity or activity for each individual encounter. Rather, individuals choose an identity and activity to maximize expected payoffs, given the probabilities of encounters with Greens who choose Activity One, Greens who choose Two, Reds who choose One, and Reds who choose Two.

C. Equilibria and Interpretation

Equilibria of this model show how social interaction within the community and social exclusion from the dominant group determine the prevalence of Red identities and Activity Two.

An All-Green Equilibrium (everyone is Green and engages in Activity One) exists, if and only if the loss in Green identity, \( r \), from exclusion from the dominant group is smaller than the difficulty of being Red in a community of Greens, \( \pi_R \).

Figure II shows this condition in the area above the 45° line from the origin. For higher levels of \( r \), equilibria must involve some in the community adopting a Red identity. The nonexistence of the All-Green equilibrium reveals a difference in the predictions of this model and previous models of behavior in poor neighborhoods. Here, social exclusion (the loss in Green identity, \( r \), is smaller) will lead some people in the community to adopt an oppositional identity and Activity Two.

In a Mixed Equilibrium of our model, some in the community choose Activity One and a Green identity, but others choose Activity Two and Red identities. This equilibrium arises for intermediate levels of \( r \) (in the area between the two upward-sloping lines in Figure II). The equilibrium adoption of Red identities and Activity Two behavior even in the absence of conformity-generating externalities exemplifies.

The equilibrium adoption of Red identities and Activity Two central to sociological study, but contrary to standard economic thinking. Rainwater [1970, p. 3] summarized his classic study of ghetto poverty: "white cupidity creates structural conditions highly inimical to basic social adaptation to which Negroes adapt themselves."

57. Full analysis of the model is available from the authors upon request. In the analysis we make the simplifying assumption that \( I_G = 0 \), so anyone who chooses a Green identity will choose Activity One. We also assume that all parameters are strictly positive and less than unity, and that \( I > 0 \).
by social and personal responses which serve to sustain the individual in his punishing world but also to generate aggressive ness toward the self and others which results in suffering directly inflicted by Negroes on themselves and on others. While Activity One is maximizing to someone with a Green identity, it is not maximizing to someone with a Green identity. It is not one is maximizing to someone with a Green identity. It is not low economic endowments and a high degree of social exclusion. Instead, it derives from low economic endowments and a high degree of social exclusion. Red behavior is not the result of individual "irrationality," but instead derives from someone with a Red identity. The "self-destructive" Red behavior is not the result of individual "irrationality," but instead derives from low economic endowments and a high degree of social exclusion. Red behavior is not the result of individual "irrationality," but instead derives from low economic endowments and a high degree of social exclusion. Red behavior is not the result of individual "irrationality," but instead derives from low economic endowments and a high degree of social exclusion.

Comparative statics of the mixed equilibrium captures Wilson's [1987, 1996] analysis of ghetto poverty. An out-migration of the middle class (those with high returns in the model) will result in further adoption of Red behavior among the remaining population. Also, when work disappears, there will be a downward movement in the middle class's choices with higher returns in the model. An out-migration of those with high returns in the model will result in further adoption of Red behavior among the remaining population.

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The figure shows ranges of parameter values for three different equilibria: All-Green, Mixed, and All-Red. Everyone is Red and chooses Activity Two and everyone else chooses Activity One. All-Green refers to everyone being Green and choosing Activity One. Mixed refers to everyone being Green and choosing Activity One, but choosing different activities. The figure shows the range of parameter values for these different equilibria.
shift in distribution of payoffs from Activity One. This shift will also increase the incidence of Activity Two and Red identities.

In an All-Red Equilibrium, some individuals choose Activity One and conform with the dominant group in terms of economic behavior, but all choose an oppositional Red identity. This equilibrium arises when a high loss from being Green in an all-Red community, $I_o$, complements high levels of social exclusion, $r$ (in the area to the right of the vertical line in Figure II). This equilibrium is also achieved with a low value of $I_o$ and, thus, provides an interpretation of social movements that may arise from exclusion.

Some separatist leaders, such as Malcolm X and Louis Farrakhan, have advanced an oppositional Red identity but at the same time have tried to change associated prescriptions, resulting in a lower $I_o$. In these movements, some separatists leaders, such as Malcolm X and Louis Farrakhan, have advanced an oppositional Red identity but at the same time have tried to change associated prescriptions, resulting in a lower $I_o$. In these movements, some separatists leaders, such as Malcolm X and Louis Farrakhan, have advanced an oppositional Red identity but at the same time have tried to change associated prescriptions, resulting in a lower $I_o$.

D. Further Lessons from the Model

The model and its solution also allow interpretations of policies designed to reduce poverty and the effects of social exclusion. Education and community exclusion are means for individual advancement, and employment are means for individual advancement. Employment and community exclusion are means for individual advancement, and education are means for individual advancement. Education and community exclusion are means for individual advancement, and employment are means for individual advancement. Education and community exclusion are means for individual advancement, and employment are means for individual advancement.

In an All-Red Equilibrium, some individuals choose Activity One. This shift will
Second, the model affords an interpretation of different education initiatives for minority students. Like Job Corps, the Central Park East Secondary School (CPESS) in East Harlem may succeed because it separates Green students from Red students. Students, for example, must apply to the school, indicating their and their parents' willingness to adopt its rules (see Fliegel [1993] and Meier [1995] for this and other details).

Another interpretation of CPESS and other successes (e.g., Comer [1980] in New Haven) parallels the logic of the all-Red equilibrium where some people nonetheless pursue Activity One. The schools take measures to reduce the loss in identity of Red students, in activities such as learning Standard English. Delpit's [1995] award-winning book *Other People's Children* proposes numerous ways to reduce the alienation that minority students may experience in school.

Finally, the model illuminates a set of issues in the affirmative action debate. Much of this debate concerns the success or failure of specific programs (see, e.g., Dickens and Kane [1996]). Yet, more at stake is the rhetoric and symbolism of affirmative action and its impact on previous discrimination and on the children who are seen as beneficiaries of affirmative action. To the extent it is seen as an identity model, the scarce of legal equality may not be enough to eliminate racial disparities.

The identity model of exclusion then, explains why legal

apparitions could have eternal implications that far exceed the impact of the University of California and University of Texas Law Schools and that the opponents of affirmative action are correct. To the extent that affirmative action programs such as those at Harvard and Stanford School of Law are seen as experiences in identity, they are likely to reduce the attractiveness of those schools to minority students.

We see this distinction in the different conclusions of two recent studies of American race relations. Thernstrom and Thernstrom [1997] urge an end to affirmative action, making the case that attitudes of whites toward blacks as well as the legal opportunities for blacks have changed since *The American Dilemma* [Myrdal 1944]. In contrast, Shipler [1997] points out the many ways in which African-Americans and whites feel uncomfortable with each other and how blacks are still not seen as full participants in society. It is clear that the model, and the identity model of exclusion in particular, provides a useful framework for understanding the complex issues of race and identity in American society.
African-Americans choose to be Red because of exclusion and if whites perpetuate such exclusions, even in legal ways, there can be a permanent equilibrium of racial inequality. The negative externalities and their consequences, however, would disappear when the community is fully integrated into the dominant culture, so that $r = 0$, and everyone in the community adopts a Green identity. This, of course, is the American ideal of the melting pot or the mosaic where difference can be maintained within the dominant culture.

VI. IDENTITY AND THE ECONOMICS OF THE HOUSEHOLD

An identity model of the household, unlike previous models, predicts an asymmetric division of labor between husbands and wives. Theories based on comparative advantage (e.g., Becker [1965] and Mincer [1962]) predict that whoever works more outside the home will work less inside the home. Yet, as Hochschild [1990] reveals, the data suggest that the rules of such arrangements are quite different.

Hochschild's [1990] study, The Second Shift, reveals that husbands and wives divide the household labor asymmetrically. When a wife works more hours outside the home, she still undertakes a large share of the housework. When a husband works more hours inside the home, he has more hours to pass in the presence of the children, so that $t = 0$, and everyone in the community adopts a Green identity. This, of course, is the American ideal of the melting pot or the mosaic where difference can be maintained within the dominant culture. Yet, when the community is fully integrated into the dominant culture, everyone in the community would adopts a Green identity.

VI. IDENTITY AND THE ECONOMICS OF THE HOUSEHOLD
answers to the question(s): 'About how much time do you (or your wife) spend on housework in an average week? I mean time spent cooking, cleaning, and doing other work around the house?' The intent of the question was to exclude child care. The figure plots men's share of housework as a fourth-order polynomial of their share of outside hours worked, for households by age of youngest child. When men do all the outside work, they contribute on average about 10 percent of housework. But as their share of outside work falls, their share of housework rises to no more than 37 percent. As shown in the figure the presence of children of different ages is in the household share of outside hours worked in group $i$. The summation ($1_{2,3}$) runs over three groups of households: with no children or youngest child over age 13, with youngest child 0 to 5, and with youngest child 6 to 13. Controls were age 12 with youngest child 6 to 13. Controls were included for age of husband, and wife relative to population average, log of total income, and the log of outside hours of housework. Results were robust to different specifications and estimators, and substitution of share of earnings for share of hours worked. The equations and confidence intervals are available upon request.
when the independent variable is shares of outside work hours. 

Existing theories do not predict this asymmetry. Consider the following variant based on comparative advantage. Husband and wife both have the same utility function, which is increasing in quantity of a household public good that derives from their joint labor. Utility is decreasing in own labor inputs in outside and home production. We assume equal bargaining power, so that each marriage partner enjoys the same level of utility. With this framework, returns to specialization explain the observed division of labor when a wife has a comparative advantage in home production. Women who put in less than half of the outside work hours put in more than half the housework, as seen in the right-hand side of the graph. But this model is inconsistent with the left-hand side of the graph.

Identity considerations can explain the high shares of housework of wives who undertake a large share of outside work hours. Add to the above model two social categories, 'men' and 'women.' Prescriptions dictate that 'men' should not do 'women's work' in the home and 'men' should earn more than their wives. Hochschild's interviews suggest that many men, and some women, hold these prescriptions. In the amended model, the husband loses identity when he does housework and when his wife earns more than half the household income. Equality of utility is restored when the wife undertakes more housework than her husband.

Hochschild reports that in the Tanagawa household, for example, 'Nina' earned more than half the family income but she worked a full week. When the wife earns more than half the household income, the husband is forced to do more housework and when he works more than his wife earns more, the husband's share of housework falls. The model predicts that the husband works more when his wife's earned income is higher than his own, and the model's predictions are in good agreement with these observations.

The model is developed by assuming equal bargaining power, so that the husband and wife both have the same utility function. This is consistent with the following variant based on comparative advantage. Physical and emotional labor are separate, but there is a trade-off between them. Existing theories do not predict this asymmetry. Consider the following model.
worked more than "Peter" at home to assuage his unease with the situation. Eventually, she quit her job.

VII. CONCLUSION

This paper considers how identity affects economic outcomes. Following major themes in psychology and sociology, identity in our models is based on social difference. A person's sense of self is associated with different social categories and how people in these categories should behave. This simple extension of the utility function could greatly expand our understanding of economic outcomes. In a world of social difference, one of the most important economic decisions that an individual makes may be the type of person to be. Limits on this choice would also be critical determinants of economic behavior. Opportunity and well-being depend on the economic environment, opportunity, and well-being. In a world of social difference, one of the most important economic decisions that an individual makes may be the type of person to be. Limits on this choice would also be critical determinants of economic behavior. Opportunity and well-being depend on the economic environment, opportunity, and well-being.

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